WHAT IS CLAIMED IS:

1. An isolated nucleic acid that encodes a guanine nucleotide exchange factor for the small GTPase Ral and a downstream effector for both Rit and Ras, or a protein with RasGEFN domain, RasGEF domain, and/or RA domain, comprising:

(a) a nucleotide sequence selected from the group consisting of:

(i)   SEQ ID NO: 1;

(ii)   the complement of the sequences set forth in (i);

(iii)   the nucleotide sequence of SEQ ID NO: 2;

(iv)   a degenerate variant of the sequences set forth in (iii); and

(v)   the complement of the sequences set forth in (iii) and (iv); or

(b) a nucleotide sequence selected from the group consisting of:

(i)   a nucleotide sequence that encodes a polypeptide having the sequence of SEQ ID No: 3;

(ii)   a nucleotide sequence that encodes a polypeptide having the sequence of SEQ ID NO: 3, with conservative amino acid substitutions; and

(iii)   the complement of the sequences set forth in (i) and (ii),

wherein said isolated nucleic acid comprising a nucleotide sequence selected from group (b) is no more than about 100 kb in length.

2. The isolated nucleic acid of claim 1 wherein said

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nucleic acid, or the complement of said nucleic acid, encodes a polypeptide having guanine nucleotide exchange activity for the small GTPase Ral, and being a downstream effector for both Rit and Ras.

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3. The isolated nucleic acid of claim 1, wherein said nucleic acid, or the complement of said nucleic acid, is expressed in adrenal, adult liver, bone marrow, brain, fetal liver, heart, kidney, lung, placenta, colon, skeletal muscle and
10 prostate, as well as a cell line, HeLa.

4. A nucleic acid probe, comprising:
    (a) the nucleic acid of claim 1; or
    (b) at least 17 contiguous nucleotides of SEQ ID NO:
15   4,
wherein said probe according to (b) is no longer than about 100 kb in length.

5. The probe of claim 4, wherein said probe is detectably
20 labeled.

6. The probe of claim 4, attached to a substrate.

7. A microarray, wherein at least one probe of said array is
25 a probe according to claim 4.

8. The isolated nucleic acid molecule of claim 1, wherein said nucleic acid molecule is operably linked to one or more expression control elements.

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9. A replicable vector comprising a nucleic acid molecule of claim 1.

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10. A replicable vector comprising an isolated nucleic acid molecule of claim 8.

11. A host cell transformed to contain the nucleic acid molecule of any one of claims 1 or 8 - 10, or the progeny thereof.

12. A method for producing a polypeptide, the method comprising: culturing the host cell of claim 11 under conditions in which the protein encoded by said nucleic acid molecule is expressed.

13. An isolated polypeptide produced by the method of claim 12.

14. An isolated polypeptide, comprising:
   (a) an amino acid sequence of SEQ ID NO: 3;
   (b) an amino acid sequence having at least 65% amino acid sequence identity to that of (a);
   (c) an amino acid sequence according to (a) in which at least 95% of deviations from the sequence of (a) are conservative substitutions; or
   (d) a fragment of at least 8 contiguous amino acids of any of (a) - (c).

15. A fusion protein, said fusion protein comprising a polypeptide of claim 14 fused to a heterologous amino acid sequence.

16. The fusion protein of claim 15, wherein said heterologous amino acid sequence is a detectable moiety.

17. The fusion protein of claim 16, wherein said detectable

.moiety is fluorescent.

18. The fusion protein of claim 15, wherein said heterologous amino acid sequence is an Ig Fc region.

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19. An isolated antibody, or antigen-binding fragment or derivative thereof, the binding of which can be competitively inhibited by a polypeptide of claim 14.

10 20. A transgenic non-human animal modified to contain the nucleic acid molecule of any one of claims 1 or 8 – 10.

21. A transgenic non-human animal unable to express the endogenous orthologue of the nucleic acid molecule of
15   claim 1.

22. A method of identifying agents that modulate the expression of RGL3, the method comprising: contacting a cell or tissue sample believed to express
20   RGL3 with a chemical or biological agent, and then comparing the amount of RGL3 expression in said cell or tissue sample with that of a control, changes in the amount relative to control identifying an agent that modulates expression of RGL3.

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23. A method of identifying agonists and antagonists of RGL3, the method comprising: contacting a cell or tissue sample believed to express RGL3 with a chemical or biological agent, and then
30   comparing the activity of RGL3 with that of a control, increased activity relative to a control identifying an agonist, decreased activity relative to a control identifying an antagonist.

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24. A purified agonist of the polypeptide of claim 14.

25. A purified antagonist of the polypeptide of claim 14.

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26. A method of identifying a specific binding partner for a
    polypeptide according to claim 14, the method comprising:
    contacting said polypeptide to a potential binding
    partner; and
10 determining if the potential binding partner binds to said
    polypeptide.

27. The method of claim 26, wherein said contacting is
    performed *in vivo*.

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28. A purified binding partner of the polypeptide of claim 14.

29. A method for detecting a target nucleic acid in a sample,
    said target being a nucleic acid according to claim 1, the
20 method comprising:
        (a) hybridizing the sample with a probe comprising
             at least 17 contiguous nucleotides of a sequence
             complementary to said target nucleic acid in
             said sample under high stringency hybridization
25   conditions, and
        (b) detecting the presence or absence, and
             optionally the amount, of said binding.

30. A method of diagnosing a disease caused by mutation in
30 RGL3, comprising:
    detecting said mutation in a sample of nucleic acids that
    derives from a subject suspected to have said disease.

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31. A method of diagnosing or monitoring a disease caused by
altered expression of RGL3, comprising:
determining the level of expression of RGL3 in a sample of
nucleic acids or proteins that derives from a subject
5   suspected to have said disease,
alterations from a normal level of expression providing
diagnostic and/or monitoring information.

32. A diagnostic composition comprising the nucleic acid of
10   claim 1, said nucleic acid being detectably labeled.

33. The diagnostic composition of claim 32, wherein said
composition is further suitable for *in vivo*
administration.

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34. A diagnostic composition comprising the polypeptide of
claim 14, said polypeptide being detectably labeled.

35. The diagnostic composition of claim 34, wherein said
20   composition is further suitable for *in vivo*
administration.

36. A diagnostic composition comprising the antibody, or
antigen-binding fragment or derivative thereof, of claim
25   19.

37. The diagnostic composition of claim 36, wherein said
antibody or antigen-binding fragment or derivative thereof
is detectably labeled.

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38. The diagnostic composition of claim 37, wherein said
composition is further suitable for *in vivo*
administration.

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39. A pharmaceutical composition comprising the nucleic acid of claim 1 and a pharmaceutically acceptable excipient.

5 40. A pharmaceutical composition comprising the polypeptide of claim 14 and a pharmaceutically acceptable excipient.

41. A pharmaceutical composition comprising the antibody or antigen-binding fragment or derivative thereof of claim 19

10   and a pharmaceutically acceptable excipient.

42. A pharmaceutical composition comprising the agonist of claim 24 and a pharmaceutically acceptable excipient.

15 43. A pharmaceutical composition comprising the antagonist of claim 25 and a pharmaceutically acceptable excipient.

44. A method for treating or preventing a disorder associated with decreased expression or activity of RGL3, the method

20   comprising administering to a subject in need of such treatment an effective amount of the pharmaceutical composition of any of claims 39, 40 or 42.

45. A method for treating or preventing a disorder associated

25   with increased expression or activity of RGL3, the method comprising administering to a subject in need of such treatment an effective amount of the pharmaceutical composition of claim 41 or 43.

30 46. A method of modulating the expression of a nucleic acid according to claim 1, the method comprising: administering an effective amount of an agent which modulates the expression of a nucleic acid according to

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claim 1.

47.   A method of modulating at least one activity of a
      polypeptide according to claim 14, the method comprising:
5   administering an effective amount of an agent which
      modulates at least one activity of a polypeptide according
      to claim 14.